

We claim:

- 1 1. A method of transmitting data comprising the steps of:
 - 2 determining a first data rate based on a measured first channel condition at a
 - 3 receiver to which data transmission is intended;
 - 4 performing a first data transmission at the first data rate;
 - 5 determining a second data rate based on a measured second channel condition at
 - 6 the receiver if the first data transmission was not successfully received by the receiver;
 - 7 and
 - 8 performing a second data transmission at the second data rate, wherein the
 - 9 second data transmission is a re-transmission of the first data transmission.
- 1 2. The method of claim 1, wherein the first and second data transmissions are identical.
- 1 3. The method of claim 1, wherein the first data transmission may be soft combined with the
- 2 second data transmission.
- 1 4. The method of claim 1 comprising the additional step of:
 - 2 receiving, prior to the step of determining the first data rate, a rate indication
 - 3 message indicating the first data rate for the receiver.
- 1 5. The method of claim 1 comprising the additional step of:
 - 2 receiving, after the step of determining the first data rate and prior to the step of
 - 3 determining the second data rate, a rate indication message indicating the second data rate
 - 4 for the receiver.
- 1 6. The method of claim 1, wherein the first data rate is a higher data rate than a data rate
- 2 indicated in a received rate indication message.
- 1 7. The method of claim 1, wherein the second data rate is a higher data rate than a data rate
- 2 indicated in a received rate indication message.
- 1 8. The method of claim 1 comprising the additional step of:
 - 2 receiving, prior to the step of determining the first data rate, a plurality of rate
 - 3 indication messages indicating the data rates for a plurality of receivers.

- 1 9. The method of claim 8 comprising the additional step of:
 - 2 selecting a receiver from the plurality of receivers to which to transmit data using
 - 3 the received plurality of rate indication messages.
- 1 10. The method of claim 9, wherein the selected receiver is a receiver associated with a rate
2 indication message indicating a highest data rate.
- 1 11. A method of receiving a data transmission comprising the steps of:
 - 2 receiving at a receiver a first data transmission at a first data rate, wherein the
 - 3 first data rate is determined using a measured first channel condition; and
 - 4 transmitting a rate indication message indicating a measured second channel
 - 5 condition if the first data transmission was not successfully received at the receiver; and
 - 6 receiving a second data transmission at a second data rate, wherein the second
 - 7 data rate is determined using the measured second channel condition.
- 1 12. The method of claim 11 comprising the additional step of:
 - 2 storing the received first data transmission if the first data transmission was not
 - 3 successfully received at the receiver.
- 1 13. The method of claim 12 comprising the additional step of:
 - 2 soft combining the stored received first data transmission with the received
 - 3 second data transmission.